

## **REMARKS/ARGUMENTS**

Claims 1-8, 10-13, 15, 17-22, 24-32, 34-40, 42-44, 47 and 49-55 remain in the application for further prosecution. Claims 41, 46, 48 and 56 have been cancelled. Claims 15 and 20 have been amended. The Applicants thank the Examiner for allowance of claims 1-8, 10-13 and 24-32.

### **Information Disclosure Statement**

Submitted herewith is an Information Disclosure Statement. The Applicants request that the Examiner consider the cited references and make them of record.

### **§ 112 Rejections**

Claims 15, 17-22, 41, 46, 48 and 56 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

Claims 15 and 20 have been amended to overcome the Examiner's rejections. Claims 41, 46, 48 and 56 have been cancelled. These amendments and cancellations are believed to overcome the Examiner's § 112 rejections.

### **§ 102 Rejections**

Claims 15, 20-22, 47, 48 and 56 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,166,700 to Jenkin et al. ("Jenkin"). Independent claims 15 and 47 are directed to a self-pointing antenna and include the limitation of "a means for adjusting an effective length of said boom arm supporting means . . . so as to selectively adjust either/or both of a beam elevation and beam azimuth of a main beam axis of said antenna."

Jenkin discloses a feed positioner mechanism 40 that is attached to the feed horn 42 and to the reflector. The feed positioner mechanism 40 uses a sliding tube-in-tube design to adjust the length of the support arm. Jenkin does not disclose that changing the length of the tubes can alter either/or both of the beam azimuth and beam elevation of the main beam axis of the antenna. Instead, it appears from the drawings as though the feed positioner mechanism 40 is used to broaden the beam in order to make the pointing easier. In fact, Jenkin teaches keeping the beam azimuth and beam elevation constant in order to properly point the antenna. Therefore, it is the Applicants' belief that Jenkin does not disclose all of the claim limitations of independent claims 15 (and also its dependent claims 20-22) and 47.

Claims 34, 36, 40, 41, 44 and 46 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,441,798 to Ehrenberg et al. ("Ehrenberg"). Independent claim 34 is directed to a self-pointing antenna comprising a reflector, one of a feed and a sub-reflector, and "a single actuator for adjusting the position of said one of a feed and a sub-reflector relative to said reflector so as to selectively adjust either/or both of the beam elevation and azimuth of a main beam axis of said antenna." Independent claim 44 is directed to a method of directing a main beam axis of the antenna structure, comprising supporting one of a feed and a subreflector and "adjusting the position of said one of a feed and a sub-reflector relative to said reflector so as to selectively adjust either/or both of a beam elevation and beam azimuth of the main beam axis of said antenna."

Ehrenberg discloses a polarization drive assembly 190 that includes a manual worm drive 192, a torque plate 193, a flex drive torque cable 194, an adjustment knob 196, and a cable disconnect 198. In operation, a user can stand a distance away from the antenna and turn the

adjustment knob 196 to manually adjust the polarity of the horn assembly. Ehrenberg teaches rotating the polarization angle of the feed, which is determined by the angle of the feed horn waveguide with respect to the axis of the earth. Instead, the claims of the present invention are directed to adjusting the beam azimuth and/or beam elevation with respect to the main reflector. Ehrenberg does not disclose adjusting the feed with respect to the main reflector. Because the independent claims of the present invention call for the actuator to be able to adjust in either/or both the azimuth or elevational directions, it is not believed that Ehrenberg anticipates these claims or their dependents.

### **§ 103 Rejections**

Claims 17, 18, 19, 49 and 53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jenkin in view of U.S. Patent No. 6,350,037 to Adams ("Adams"). Claims 17, 18, 19, 49 and 53 are dependent on claims 15 and 47 and, thus, include the limitation "a means for adjusting an effective length of said boom arm supporting means . . . so as to selectively adjust either/or both of a beam elevation and beam azimuth of a main beam axis of said antenna."

Adams is directed to moving a mirror to enable a driver of a car to view their "blind spot." As stated in the prior responses, Adams is nonanalogous art. It is well-settled that to be analogous art, the "reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oeticker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Adams does not meet either of these requirements. The present invention is directed to self-pointing antennas, not car mirrors. Also, Adams is directed to the problem of a driver being unable to use a conventional mirror to see his

or her "blind spot." The present invention is directed to easily enable a user to adjust the location of a feed horn relative to an antenna.

Even if Adams is considered to be analogous art, there still is no motivation to combine Adams with Jenkin. Neither reference provides any suggestion or teaching that an inventor should look to the other. The only motivation to combine the two references is supplied by the present reference. *See* page 6, lines 4-10. The Examiner is improperly using hindsight by using the present invention as a road map of the prior art.

Claims 35, 37, 38, 39, 42 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ehrenberg in view of U.S. Patent No. 5,874,925 to Choi ("Choi"). Claims 35, 37, 38, 39, 42 and 43 are ultimately dependent on claim 34 and, therefore, include the limitations of: a) a single actuator; b) having support struts; and c) the actuator adjusting either/or both the beam elevation and azimuth of a main beam axis of the antenna. As an initial matter, it is the Applicants' belief that neither Ehrenberg nor Choi disclose a single actuator that is capable of adjusting either/or both the beam elevation and azimuth of a main beam axis of the antenna. Regarding Ehrenberg, the arguments made in reference to claim 34 are equally applicable here. Regarding Choi, the abstract expressly states that the driven gears are for adjusting an elevation angle. *See*, Choi, abstract. There is no mention in Choi of adjusting the azimuth. Thus, for at least this reason, claims 35, 37, 38, 39, 42 and 43 are believed to be allowable over Ehrenberg and Choi.

Second, Choi does not disclose a two-axis actuator (claim 35) or a two-axis motorized carriage (claims 37 and 38). In fact, Choi expressly teaches against using the motorized carriage for adjusting the azimuthal direction of the feed horn by disclosing use of an elastic hook 103 at

each end to prevent the LNB case 100 from moving from side to side. Choi, column 2, lines 60-62. Therefore, because Ehrenberg also does not disclose a two-axis motorized carriage, claims 35, 37 and 38 are believed to be in condition for allowance.

Third, claims 42 and 43 include the limitation that the antenna includes a “readout device operatively coupled to said actuator to allow closed loop control of the position of said sub-reflector.” Neither Choi nor Ehrenburg disclose such a readout device. Thus, claims 42 and 43 are also believed to be allowable.

Claims 50-52, 54 and 55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jenkin in view of Choi. Claims 50-52, 54 and 55 are all dependent on claim 47 and, thus, include the limitation of “the means for adjusting the position of said one of a feed and a sub-reflector relative to said reflector so as to selectively adjust either/or both of a beam elevation and beam azimuth of the main beam axis of said antenna, said adjusting means comprising a single actuator.” As stated above with reference to claim 47, it is the Applicants’ belief that Jenkin does not teach such a limitation, and neither does Choi, for the reasons stated above.

Second, claims 50 and 51 include the limitation that the “actuator comprises a two-axis motorized carriage.” As stated above, Choi does not disclose a two-axis motorized carriage and, in fact, expressly teaches against such a combination.

## **Conclusion**

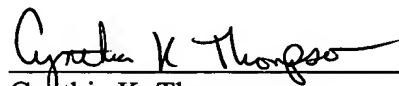
It is the Applicants’ belief that all of the claims are now in condition for allowance and action towards that effect is respectfully requested.

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If there are any matters which may be resolved or clarified through a telephone interview,  
the Examiner is requested to contact the undersigned attorney at the number indicated.

Respectfully submitted,

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